

Notic of Allowability

Application No.

09/821,935

Examin r

Michael P. Mooney

Applicant(s)

CRAFTS ET AL.

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-- The MAILING DATE of this communication appears on th c ver sheet with the c rrespondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amdt. filed 7/2/04.
2. ☒ The allowed claim(s) is/are 1,3,4,8-16,18-20,25,27,28 and 31-39.
3. ☒ The drawings filed on 07 May 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

At the end of claim 38, please delete "polarization; and" and replace with --polarization.--

The cancellation of claims 2, 5-7, 17, 21-24, 26, and 29-30 is acknowledged.

Reason for Allowance

Claims 1, 3-4, 8-16, 18-20, 25, 27-28, 31-39 are allowed for the following reasons:

The instant application is deemed to be directed to a nonobvious improvement over the invention in Nonomura et al. (PG PUB. 20020129623).

Claim 1 is allowed because the prior art of record, taken alone or in combination, fails to disclose or render obvious an apparatus including an optical fiber rotator that adjusts a polarization of a 1st optical fiber (OF) and a 2nd OF when the OFs are adjacently disposed within the capillary; and a removable funnel having an opening positioned adjacent to the capillary opening in combination with the rest of the limitations of the base claim. Claims 3-4, 8-10 depend on claim 1 and therefore they are also allowed.

It is noted that the claim 1 is allowable because the unique combination of each and every specific element stated in the claim.

Claim 11 is allowed because the prior art of record, taken alone or in combination, fails to disclose or render obvious an apparatus including a capillary having an opening of a dimension for accommodating a first polarization maintaining optical fiber and a second polarization maintaining optical fiber; a clamp to provide a clamping force to the capillary to removably couple the capillary to the clamp; a main body positioned adjacent to the clamp; a first and a second roller, connected to the main body, to removably engage the capillary to rotate the capillary, the main body and the rollers comprising an optical fiber capillary rotator; and a polarization maintaining optical fiber rotator knob having a shaft, wherein the knob and shaft each have an opening to accept the first optical fiber such that the first optical fiber is concentric with the knob and rotation of the knob causes the first optical fiber to rotate about its center of axis, the knob and shaft comprising a polarization maintaining optical fiber rotator which is mounted adjacent to the first optical fiber in combination with the rest of the limitations of the base claim. Claims 12-15 depend on claim 11 and therefore they are also allowed.

It is noted that the claim 11 is allowable because the unique combination of each and every specific element stated in the claim.

Claim 16 is allowed because the prior art of record, taken alone or in combination, fails to disclose or render obvious a method including securing a capillary to a capillary support; rotating the capillary by use of a capillary rotator such that an

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opening in the capillary is positioned in a selected orientation; inserting a first and a second optical fiber (OF) into the opening in the capillary such that the 1st and 2nd OFs are adjacently positioned; rotating the 1st OF by use of an OF rotator assembly such that the 1st and 2nd OFs have a selected polarization; and positioning a removable funnel adjacent to the capillary when the capillary is secured within the capillary support in combination with the rest of the limitations of the base claim. Claims 18-20 depend on claim 16 and therefore they are also allowed.

It is noted that the claim 16 is allowable because the unique combination of each and every specific element stated in the claim.

Claim 25 is allowed because the prior art of record, taken alone or in combination, fails to disclose or render obvious a method including securing a capillary to a clamp; engaging the capillary with a capillary rotator; rotating the capillary by use of the capillary rotator such that an opening in the capillary is positioned in a selected orientation; inserting a first optical fiber and a second optical fiber into the opening in the capillary such that the first and second optical fibers are adjacently positioned; inserting the first optical fiber into a optical fiber rotator; positioning the first optical fiber concentric with the optical fiber rotator; rotating the optical fiber rotator such that the first and second optical fibers have a selected polarization; and positioning a removable funnel adjacent to the capillary when the capillary is secured within the clamp in combination with the rest of the limitations of the base claim. Claims 27-28 depend on claim 25 and therefore they are also allowed.

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It is noted that the claim 25 is allowable because the unique combination of each and every specific element stated in the claim.

Claim 31 is allowed because the prior art of record, taken alone or in combination, fails to disclose or render obvious an apparatus including a capillary support for holding a capillary; a capillary rotator that adjusts an orientation of an opening within the capillary, the capillary rotator having a main body positioned adjacent to the capillary support, the capillary rotator having a first and second roller connected to the main body, the rollers to removably engage the capillary to rotate the capillary; and an optical fiber rotator that adjusts a polarization of a first optical fiber and a second optical fiber when the optical fibers are adjacently disposed within the capillary in combination with the rest of the limitations of the base claim. Claims 32-33 depend on claim 31 and therefore they are also allowed.

It is noted that the claim 31 is allowable because the unique combination of each and every specific element stated in the claim.

Claim 34 is allowed because the prior art of record, taken alone or in combination, fails to disclose or render obvious a method including a capillary support for holding a capillary; a capillary rotator that adjusts an orientation of an opening within the capillary, the capillary rotator having a main body positioned adjacent to the capillary support, the capillary rotator having a first and second roller connected to the main body, the rollers to removably engage the capillary to rotate the capillary; and an optical fiber rotator that adjusts a polarization of a first optical fiber and a second optical fiber

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when the optical fibers are adjacently disposed within the capillary in combination with the rest of the limitations of the base claim.

It is noted that the claim 34 is allowable because the unique combination of each and every specific element stated in the claim.

Claim 35 is allowed because the prior art of record, taken alone or in combination, fails to disclose or render obvious a method including securing a capillary to a capillary support; rotating the capillary by use of a capillary rotator such that an opening in the capillary is positioned in a selected orientation; inserting a first and a second optical fiber into the opening in the capillary such that the first and second optical fibers are adjacently positioned; rotating the first optical fiber by use of an optical fiber rotator assembly such that the first and second optical fibers have a selected polarization, rotating the first optical fiber including inserting the first optical fiber into an optical fiber rotator, the optical fiber rotator having a optical fiber rotator knob, positioning the first optical fiber concentric with the knob, and rotating the knob to rotate the first optical fiber about its center of axis in combination with the rest of the limitations of the base claim. Claims 36-37 depend on claim 35 and therefore they are also allowed.

It is noted that the claim 35 is allowable because the unique combination of each and every specific element stated in the claim.

Claim 38 is allowed because the prior art of record, taken alone or in combination, fails to disclose or render obvious a method including inserting a first optical fiber and a second optical fiber into the opening in the capillary to adjacently

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position the first and second optical fibers by separating an optical fiber rotator first knob portion from an optical fiber rotator second knob portion, inserting the first optical fiber into an opening in the knob, and securing the first optical fiber between the first and second knob portions; inserting the first optical fiber into a optical fiber rotator; positioning the first optical fiber concentric with the optical fiber rotator; rotating the optical fiber rotator such that the first and second optical fibers have a selected polarization in combination with the rest of the limitations of the base claim. Claim 39 depends on claim 38 and therefore they are also allowed.

It is noted that the claim 38 is allowable because the unique combination of each and every specific element stated in the claim.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Mooney whose telephone number is 571-272-2422. The examiner can normally be reached during weekdays, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-

1562.



Michael P. Mooney

Examiner

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Frank G. Font

Supervisory Patent Examiner

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FGF/mpm

1/23/05